

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, TRAFFIC SIGNAL HEADS, ADVANCED WARNING SIGNS, VIDEO DETECTION AND PAVEMENT MARKING MODIFICATIONS. THE INTERSECTION OF U.S. 15 AND MD 28 (CLAY ST.) IS LOCATED IN FREDERICK COUNTY.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, SEMI-TRAFFIC ACTUATED MODE, WITH THE U.S. 15 APPROACHES RUNNING CONCURRENTLY.

AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE WILL BE PROVIDED FOR SOUTHBOUND U.S. 15. THE EXCLUSIVE PHASE WILL BE A LAG LEFT

III. SPECIAL NOTES

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM GEOMETRICS PRIOR TO PLACING SIGNAL EQUIPMENT.

EQUIPMENT LIST "B"

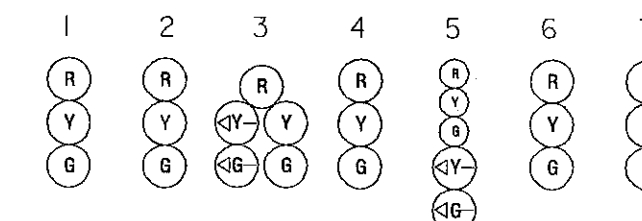
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
5001	1200 LF	REMOVAL OF EXISTING PAVEMENT MARKINGS - ANY WIDTH
5003	300 LF	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKINGS
5006	50 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKINGS
6000	2 EA	TO BE NEGOTIATED - TYPE C TRAFFIC BARRIER END TREATMENT
6005	212.5 LF	TRAFFIC BARRIER W BEAM
6006	17 EA	TRAFFIC BARRIER W BEAM POST NORMAL 6 FOOT LENGTH
8001	8 CY	CONCRETE FOUNDATION
8013	1 EA	PED POLE (ANY SIZE)
8014	1 EA	REM & DISPOSE MAT & EQUIP PER ASSIGN
8021	18 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8022	1175 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8027	100 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8028	275 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8031	900 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8044	1 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
8045	8 EA	ELECTRICAL HANDHOLE
8047	18 SF	INSTALL GROUND MOUNTED SIGN
8048	64 SF	INSTALL OVERHEAD SIGN
8049	3 EA	VIDEO DETECTION CAMERA
8050	2 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
8051	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
8058	1 EA	STEEL POLE WITH SINGLE 60 FOOT MAST ARM
8069	2 EA	GROUND ROD - 3/4" DIA. X 10 FOOT LENGTH
8070	3 EA	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8071	24 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8074	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8079	300 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8080	450 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8085	1 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
8086	1 EA	INSTALL STRAIN POLE, ANY SIZE
8091	1 EA	INSTALL CONDUIT BEND IN EXISTING FOUNDATION
8092	1075 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 12 AWG)

EQUIPMENT LIST "C"

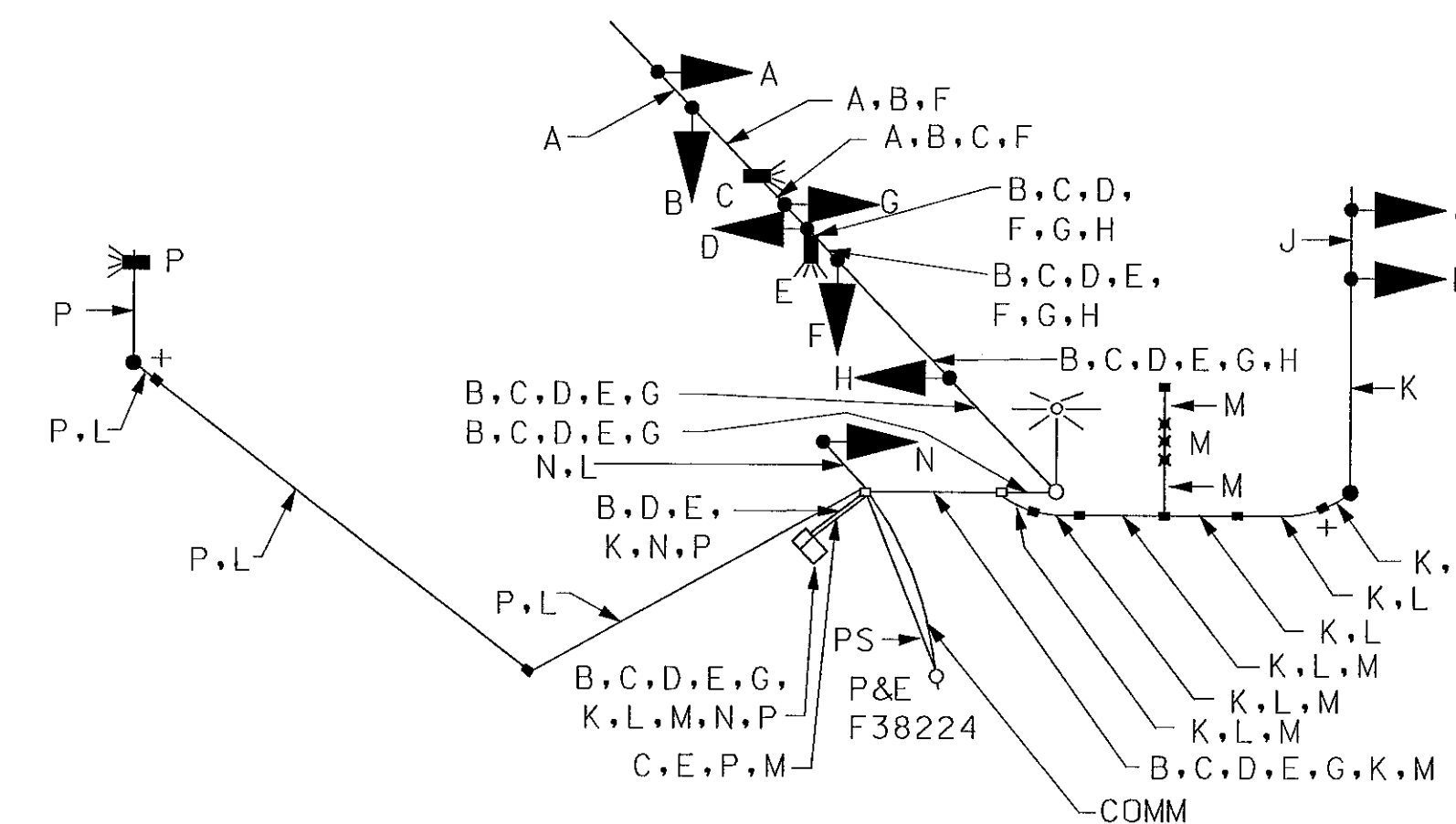
C. ALL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR

PHASE CHART



PHASE 2+6	G	G	G	G	R	R	
6 CLEAR	Y	Y	G	G	R	R	
PHASE 2+5	R	R	G/YG	G	G/YG	R	R
2+5 CLEAR	R	R	Y/YG	G	Y/YG	R	R
PHASE 8	R	R	R	R	R	G	G
8 CLEAR	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/YFL/YFL/YFL/YFL/YFL/RFL/R						

WIRING DIAGRAM



WIRING KEY

- J,K - 5-CONDUCTOR ELECTRICAL CABLE (No. 12 AWG)
- A,D,F,H - 5-CONDUCTOR ELECTRICAL CABLE (No. 14 AWG)
- B,G,N - 7-CONDUCTOR ELECTRICAL CABLE (No. 14 AWG)
- C,E,P - VIDEO DETECTION CONTROL CABLE
- COMM - TELEPHONE SERVICE
- L - STRANDED BARE COPPER GROUND WIRE (No. 6 AWG)
- M - NON-INVASIVE DETECTOR LEAD IN CABLE
- PS - EXISTING POWER SOURCE
- + - 3/4 " x 10' GROUND ROD

A. EQUIPMENT TO BE SUPPLIED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
9042	1 EA	CONTROLLER ASC II WITH TELEMETRY
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	17.2 SF	SHEET ALUMINUM GROUND MOUNTED SIGNS (1) W3-3 36"x36" (1) M3-3 24"x12" (1) M1-4 24"x24" (1) M6-1 21"x15"
9571	64 SF	SHEET ALUMINUM OVERHEAD MOUNTED SIGNS (1) R10-12 30"x24" (MAST ARM MOUNT) (1) W3-3(2) 120"x60" (MAST ARM MOUNT) (1) W3-3 36"x36" (POLE MOUNT)
9009	1 EA	12 INCH X 30 FOOT STRAIN POLE (1 3/4 INCH X 90" ANCHORS INCLUDED)

THE FOLLOWING CONTACT PERSONS FOR DISTRICT # 7 ARE AS FOLLOWS:

Mr. Robert Fisher
District Engineer
Phone: (301) 624-8102

Mr. John Concannon
Assistant District Engineer-Traffic
Phone: (301) 624-8141

Mr. Dave Coyne
Assistant District Engineer-Maintenance
Phone: (301) 624-8105

Mr. Jim Buckalew
Utility Engineer
Phone: (301) 624-8115

THE FOLLOWING CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

Mr. Richard L. Daff
Chief Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Chief, Signal Operations
410-787-7650

Mr. Eugene Bailey
Chief, Sign Operations
410-787-7676

The Power Company Representative is:
Ms. Sherry Strother
Allegheny Power
P.O. Box 1392
Fairmont, WV 26554
(304) 367-3370

RK & K
RUMMEL, KLEPPER
& KAHL, LLP
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TEL: (410) 728-2900 FAX: (410) 383-3270

SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
U.S. 15 AND MD 28 (CLAY ST)
GENERAL INFORMATION SHEET
POINT OF ROCKS, MARYLAND

DRAWN BY: GWT	F.A.P. NO.	TS NO.	SHEET NO. 4 OF 4
CHECKED BY: EBY	S.H.A. NO.	TS-1528-A	
SCALE: NONE	COUNTY: FREDERICK	T.I.M.S. NO.	
DATE: SEPTEMBER, 2004	LOG MILE: 10001500.37	6142	